

CLAIMS

What is claimed is:

1. A substrate for an electronic device configured for mounting a discrete conductive element thereon, the substrate comprising:
 - a sheet of insulative material;
 - a metal layer defining a terminal pad formed on a surface of the sheet;
 - an insulative mask extending over the sheet and having an aperture therein through which a portion of the terminal pad is exposed; and
 - a bond pad layer comprising at least another metal layer formed over, at most, a portion of the exposed portion of the terminal pad, the bond pad layer extending up a sidewall of the aperture and over a portion of the insulative mask adjacent to the aperture.
2. The substrate of claim 1, further comprising a solder ball in electrical contact with both the bond pad layer and the terminal pad.
3. The substrate of claim 2, wherein the solder ball is attached to a side surface of the bond pad layer.
4. The substrate of claim 3, wherein the solder ball is attached to the portion of the bond pad layer extending over the insulative mask.
5. The substrate of claim 2, wherein the bond pad layer is configured as radially extending elements generally symmetrically arranged about the terminal pad.
6. The substrate of claim 2, wherein the bond pad layer comprises a plurality of apertures through which the terminal pad is exposed.

7. A substrate for an electronic device configured for mounting a discrete conductive element thereon, the substrate comprising:

- a sheet of insulative material;
- a metal layer defining a terminal pad formed on a surface of the sheet;
- an insulative mask extending over the sheet and having an aperture therein through which a portion of the terminal pad is exposed, the exposed portion of the terminal pad having a centroid;
- and
- a bond pad layer comprising at least a metal layer formed over at least a portion of the exposed portion of the terminal pad, extending up a sidewall of the aperture and over a portion of the insulative mask adjacent to the aperture, and having a centroid;

wherein the bond pad layer centroid is misaligned with the centroid of the terminal pad.

8. The substrate of claim 7, wherein the centroid of the bond pad layer is positioned according to a measured lateral position of the aperture in the insulative mask.

9. The substrate of claim 7, wherein misalignment between the centroid of the bond pad layer and the centroid of the terminal pad is attributable to removal of a portion of the bond pad layer.

10. A method of forming a substrate for an electronic device configured for mounting a solder ball thereon, comprising:

- providing a sheet of insulative material;
- forming a metal layer defining a terminal pad on a surface of the sheet;
- forming an insulative mask over the sheet having an aperture therein exposing a portion of the terminal pad; and
- forming a bond pad layer comprising at least another metal layer which is formed over, at most, a portion of the exposed portion of the terminal pad, the bond pad layer extending up a sidewall of the aperture and over a portion of the insulative mask adjacent to the aperture.

11. The method of claim 10, further comprising adjusting a centroid of the bond pad layer after it has been formed.

12. The method of claim 11, wherein adjusting the centroid of the bond pad layer after it has been formed comprises removing a portion of the bond pad layer.

13. The method of claim 10, wherein forming the bond pad layer comprises forming the bond pad layer with a lateral extent that exceeds the lateral extent of the terminal pad.

14. The method of claim 10, further comprising electrically attaching a solder ball to both the bond pad layer and the terminal pad.

15. The method of claim 14, wherein attaching a solder ball to both the bond pad layer and the terminal pad comprises attaching the solder ball to a side surface of the bond pad layer.

16. The method of claim 14, wherein attaching a solder ball to both the bond pad layer and the terminal pad comprises attaching the solder ball to the portion of the bond pad layer extending over the insulative mask.

17. The method of claim 10, wherein forming the bond pad layer comprises forming the bond pad layer as one or more radially extending elements generally symmetrically arranged about the terminal pad.

18. The method of claim 10, wherein forming the bond pad layer comprises forming multiple apertures in the bond pad layer through which the terminal pad is exposed.